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Opportunities for the Use of Pedagogical and Information Technologies in the Process of Solving the Issue

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A B S T R A C T
Solving a problem in the process of modern education is not only an important means of strengthening knowledge, but also the development of logical thinking. The use of pedagogical technologies and information technologies in improving the effectiveness of training makes the process of solving the issue more convenient and effective.

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Introduction

Pedagogical technologies are aimed at organizing the educational process based on scientific approaches and increasing students' activity. Problem-solving is effectively supported by problem-based learning, differential approaches, and interactive methods. For example, in problem-based learning, students learn to think independently and approach problems from different perspectives. The differential approach considers each student's individual abilities and provides them with appropriate tasks.

The problem-solving process helps expand children's thinking, identify logical connections, and understand cause-and-effect relationships. At the same time, problem-solving skills contribute to the development of life skills, fostering unique and creative problem-solving abilities. The widespread use of educational technologies enriches this process and enhances its effectiveness.

National and international experiences show that developing problem-solving skills in primary school students is more successful when combined with innovative teaching tools and interactive technologies rather than being limited to traditional methods. For example, electronic resources, simulation programs, game elements, and virtual laboratories make the learning process more engaging, increasing students' interest in problem-solving and strengthening their practical skills.

Methodology

Additionally, it is crucial to choose methods and technologies appropriate for the age of primary school students. The rational use of technology in the educational process, linking theoretical knowledge with practice, and creating conditions that allow students to fully demonstrate their abilities are essential. This approach lays the foundation not only for problem-solving skills but also for creative and logical thinking.

The simple and complex problems studied in primary grades aim to strengthen students' knowledge and

generate new insights. For example, concepts such as increasing labor productivity or the government's care for children's education and leisure should be explained in a way that is understandable to them.

In the process of solving textual problems, students acquire new mathematical knowledge and develop the ability to apply it in real life. Problem-solving begins with understanding the problem's content. When students do not yet have reading skills, teachers should read the problem aloud, and students should learn to identify the key elements.

An individualized approach plays a crucial role in developing problem-solving skills. Teaching methods should be designed considering each student's abilities, knowledge level, and thinking speed. Using diagnostic tools to identify students' strengths and weaknesses and developing tailored learning plans is important.

Teaching students critical thinking during problem-solving is also essential. Problems may include incorrect or misleading information, requiring students to identify these errors, thus fostering analytical thinking. This method helps children develop the ability to analyze problems from multiple perspectives.

Information technologies make modern education more dynamic and effective. Using computer programs for problem-solving allows students to visualize concepts. Online platforms like Khan Academy provide independent learning opportunities. As schools' technical resources improve, traditional visual aids in mathematics lessons can be replaced with computer slides.

Results and discussion

For example, consider the following problem:

Problem: A store sold 160 kg of apples on the first day, which was 1/3 of all apples. On the second day, 4/5 of the remaining apples were sold. How many kilograms of apples were left for the third day?

Solution:

1. The problem statement is displayed on the screen.
2. Images show that the first day's sales were 1/3 of all apples.
3. The total weight of all apples is calculated, and the remaining apples are determined.
4. The second day's sales of 4/5 of the remaining apples are explained.
5. Answer: 64 kg of apples were left for the third day.

Since visual learning is more effective than auditory learning, the ability to repeatedly review slides on a computer enhances understanding and retention.

Teachers can use the **Venn Diagram** method to summarize students' thoughts on the topic. The similarities and differences between various types of quadrilaterals are analyzed using a diagram. Additionally, the "Blist Game" method can be used, where students are divided into small groups and solve problems quickly in a competitive format.

Conclusion

The "Blist Game" method serves as a bridge between theoretical knowledge and practical application. During the game, group leaders pick a figure from a closed box, and students work on solving problems related to the shape they receive. This method helps develop logical thinking and problem-solving skills.

The proper use of pedagogical and information technologies enhances the effectiveness of problem-solving, fostering students' analytical and creative thinking skills. This, in turn, lays a solid foundation for their future success.

Reference:

1. Abdukarimov, T. (2020). Pedagogik texnologiyalarni qo'llashda interaktiv metodlar. Tashkent: "O'qituvchi" nashriyoti, 45-49-b.
2. Azizova Q.M. Boshlang'ich sinf o'quvchilarining xalqaro tadqiqotlar misolida savodxonligini baholash. "Таълимдаги халқаро тадқиқотларнинг Янги Ўзбекистон тараққиётидаги ўрни"

мавзусидаги халқаро илмий-амалий конференция мақолалар тўплами – Тошкент: Таълим сифатини баҳолаш бўйича халқаро тадқиқотларни амалга ошириш миллий маркази, 2022. – 274 б.

3. Karimov, R. (2018). Boshlang‘ich ta’limda o‘quvchilarning mantiqiy fikrlashini rivojlantirish metodikasi. Samarkand: “Ta’lim” nashriyoti, 102-105-b.
4. Mamatov, A., & Usmanov, J. (2021). Axborot-kommunikatsiya texnologiyalari va ta’lim jarayoniga integratsiya. Tashkent: “Fan va texnologiya” nashriyoti, 64-b.
5. Qorayev S.B., Allayorova S.B. Boshlang‘ich sinf o‘quvchilarini pirls xalqaro baholash dasturi tizimiga tayyorlash jarayonini takomillashtirish masalalari. Academic research in educational sciences volume 2 | ISSUE 2 | 2021. ISSN: 2181-1385. Scientific Journal Impact Factor (SJIF) 2021: 5.723 / DOI: 10.24411/2181-1385-2021-00217. 443-448-b.
6. Rahmatova, D. (2020). Boshlang‘ich sinfda o‘qitishning yangi usullari. Tashkent: “Maqsad” nashriyoti, 88-90-b.
7. Turaev, S. (2022). Metakognitsiya va ta’limda masala yechish metodikasi. Bukhara: “O‘zbekistan ta’limi” nashriyoti, 61-b.
8. Xodjiev, B. (2019). Innovatsion pedagogika: yangi metodlar va texnologiyalar. Nukus: “Akademnashr” nashriyoti, 50-52-b.